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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,236	10/27/2000	Daniel Sheeran	1140417-991101	5407

7590 07/23/2004

Derek J. Westberg
The Law Offices of Derek J. Westberg
Two North Second Street, Suite 1390
San Jose, CA 95113

EXAMINER

SAM, PHIRIN

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 07/23/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/699,236

Applicant(s)

SHEERAN, DANIEL

Examiner

Phirin Sam

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-15, 21-26, 30-33, 39-41, 43, 44 and 48-51 is/are rejected.
- 7) ☒ Claim(s) 9-11, 16-20, 27-29, 34-38, 42, 45-47 and 52-56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4, 7, 8, 9, and 11.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 7, 21, 25, 39-41, and 43, are rejected under 35 U.S.C. 102(e) as being anticipated by Williams et al (U.S. Patent 5, 880,864).

Williams et al discloses the invention (**claim 1**) as claimed including a system for dynamically allocating bandwidth between one or more customer services to provide a switched data network for broadcast data, comprising:

- (a) one or more different customer service providers that each provide different data to one or more customers (see Fig. 1, elements 106-110, col. 6, lines 52-59).
- (b) one or more service nodes wherein each service node provides data to one or more customers and each service node receives a unique multiplex of digital data for its customers (see Fig. 1, element 105, col. 6, lines 42-45, 52-55, 59-63).
- (c) a dynamic bandwidth allocation module for allocating the bandwidth of the system between the one or more different customer service providers to the one or more service nodes wherein the bandwidth assigned to each customer service provider for each service node is dynamically adjustable based on the usage of the services by the customers and the bandwidth requests of each service provider (see Fig. 1, element 105, col. 6, lines 64-67, col. 7, lines 1-8, and col. 10, lines 54-67).

Regarding claim 7, Williams et al discloses the bandwidth allocation comprises one or more of permanent bandwidth allocation, period of time bandwidth allocation and as available bandwidth allocation (see Fig. 1, col. 6, lines 64-67, and col. 7, lines 1-8).

Regarding claims 21 and 25, Williams et al discloses a method for dynamically allocating bandwidth between one or more customer services to provide a switched data network for broadcast data, the one or more different customer service providers each providing different data to one or more service nodes (see Fig. 1, elements 105-110, col. 6, lines 42-59), the one or more service nodes providing data to one or more customers and each service node receives a unique multiplex of digital data for its customers (see Fig. 1, col. 6, lines 52-63), comprising:

- (a) allocating the bandwidth of the system between the one or more different customer service providers to the one or more service nodes wherein the bandwidth assigned to each

customer service provider for each service node is dynamically adjustable based on the usage of the services by the customers and the bandwidth requests of each service providers (see Fig. 1, col. 6, lines 64-67, and col. 7, lines 1-8).

Regarding claim 39, Williams et al discloses a dynamic bandwidth allocation device, comprising:

- (a) a dynamic bandwidth allocator that allocates the bandwidth of a system between one or more different customer service providers to one or more service nodes wherein the bandwidth assigned to each customer service provider for each service node is dynamically adjustable based on the usage of the services by the customers and the bandwidth requests of each service providers (see Fig. 1, col. 6, lines 52-63).
- (b) the dynamic bandwidth allocator further comprising a bandwidth manager that receives bandwidth requests from the one or more customer service providers and assigns bandwidth to each of the customer service providers for each service node and a remultiplexer module, based on the bandwidth allocation decisions of the bandwidth manager, that generates the digital data multiplex for each service based on the bandwidth allocations (see Fig. 1, col. 64-67, and col. 7, lines 1-8).

Regarding claim 40, Williams et al discloses the customer services comprise one or more of video on demand, IP data and broadcast data (see col. 5, lines 48-53).

Regarding claims 41 and 43, Williams et al discloses the bandwidth manager further comprises a decision tree having one or more rules for determining the allocation of the bandwidth for each service node (see col. 5, lines 48-53, col. 6, lines 64-67, and col. 7, lines 1-8).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-6, 8, 22-24, 26, 42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al (U.S. Patent 5, 880,864) in view of Kinrot (U.S. Patent 6,574,193).

Regarding claims 2-6, 22-24, and 42, Williams et al discloses all the limitations. On the other hand, Williams et al does not disclose remultiplexer module. However, Kinrot discloses remultiplexer module (see Fig. 1, element 30, col. 7, lines 12-30), wherein the packets transmit from encoders 22 are multiplexed into AAL-2 (26) and send to 28 and theses packets are transmitted to 30 for remultiplexing for sending to network. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the remultiplexer module teaching by Kinrot with Williams et al. The motivation for doing so would have been to provide to improve the method for congestion control in ATM networks read on column 2, line 63. Therefore, it would have been obvious to combine Kinrot and Williams et al to obtain the invention as specified in the claims 2-6, 22-24, and 42.

Regarding claims 8, 26, and 44, Williams et al does not discloses the bandwidth allocation to each customer service further comprises a maximum bit-rate and an average bit-rate. However, Kinrot discloses the maximum bit-rate and the average bit-rate (see Figs. 4 and 5, col. 3, lines 6-8, col. 8, lines 55-57, and col. 9, lines 1-35). At the time of the invention, it would

have been obvious to a person of ordinary skill in the art to combine the maximum and average bit-rates teaching by Kinrot with Williams et al. The motivation for doing so would have been to provide to improve the congestion control in the network. Therefore, it would have been obvious to combine Willaim et al and Kinrot to obtain the invention as specified in the claims 8, 26, and 44.

6. Claims 12-15, 30-33, and 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al (U.S. Patent 5, 880,864) in view of Enns et al (U.S. Patent 6,658,010).

Regarding claims 12-15, 30-33, and 48-51, Williams et al discloses all the limitations. On the other hand Williams et al does not disclose means for assigning a quality of service to one or more of the customer services. However, Enns et al discloses means for assigning a quality of service to one or more of the customer services (see Fig. 1, col. 13, lines 65-67, col. 14, lines 1-24, and col. 22, lines 52-55). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine means for assigning the QoS to one or more services teaching by Enns et al with Williams et al. The motivation for doing so would have been to provide to optimize for heavy download traffic transfer read on column 5, line 20-23. Therefore, it would have been obvious to combine Enns et al and Williams et al to obtain the invention as specified in the claims 12-15, 30-33, and 48-51.

Allowable Subject Matter

7. Claims 9-11, 16-20, 27-29, 34-38, 45-47, and 52-56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) Nishimura et al (U.S. Patent 6,381,244) discloses connectionless communication method.

(2) Haddock et al (U.S. Patent 6,104,700) discloses policy-based quality of service.

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Phirin Sam whose telephone number is (703) 308 - 9294.

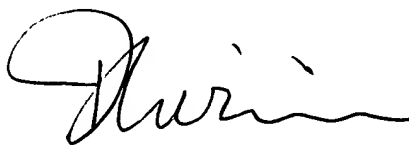
The Examiner can normally be reached on Monday - Friday from 8:30AM - 4:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Douglas W. Olms can be reached at (703) 305 - 4703. The fax number for the organization where this application or proceeding is assigned is (703) 872 - 9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217 - 9197 (toll-free).

Respectfully submitted,

Date: July 19, 2004



Phirin Sam
Patent Primary Examiner